The Fe-base build-up alloy of the present invention may be applied also for build-up welding of a part required to have a high wear resistance such as an engine valve, a shaft sleeve, a bearing, an extrusion screw, a backup roll, a pump part or a plunger, and it is needless to mention that, in such a case, the resultant build-up welded part can display an excellent performance.

What is claimed is:

1. An Fe build-up alloy excellent in resistance to corrosion and wear, consisting essentially of in weight percent:

C: from 0.005 to 1.6%,
Mn: from 4 to 28%,
Cr: from 12 to 36%,
Mo: from 0.01 to 9%,
Hf: from 0.005 to 15%,
N: from 0.01 to 0.9%, and

further containing:

Si: from 0 to 5%,
Ni: from 0 to 30%, and

one or both of:

Nb and W: from 0 to 6%, and

the balance being Fe and incidental impurities.

2. The Fe build-up alloy of claim 1 containing 0.01 to 5% Si and 5 to 30% Ni.

3. Fe build-up alloy of claim 1 containing one or both of Nb and W in amounts of from 0.01 to 6%.

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